



MISSOURI DEPARTMENT OF NATURAL RESOURCES
LAND RECLAMATION PROGRAM
MINE PLAN

COMPANY NAME

Miner's Rock Quarry

TYPE OF MINE PLAN (CHECK ONE)

☐ Short Term – for one permit year

☒ Long Term – for period through date 8/28/2010

DESCRIPTION OF SITE PRIOR TO LAND RECLAMATION COMMISSION PERMITTING (BY APPLICANT OR PRIOR OPERATOR), INCLUDING SOIL, VEGETATION AND TOPOGRAPHY.

This plan covers an area of approximately 20 acres (See Map 1). Most of the mine area has a slope of nearly 33% and is heavily wooded. Topsoil is very thin and rocky. The area is bordered to the west by State Route CC. Because the hills are so steep we plan on mining about a half acre per year. Thus we request a long-term mine plan for 50 years. The 50 year long-term mine plan will allow us at least 40 years of mining and adequate elbow room in case of slack years.

OPERATION PLAN – 10 SCR 40 – 10.020(2)(D)1

A. TOPSOIL

AVERAGE DEPTH OF TOPSOIL, PRIOR TO LAND RECLAMATION COMMISSION PERMITTING

3

IS TOPSOIL TO BE SOLD OR DISCARDED OFF-SITE?

☒ Yes

☐ No

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL REMOVAL

After trees are cleared with bulldozers, the top 12 inches of soil will be removed by scraper. Because the topsoil is only 3 inches deep, an additional 9 inches of subsoil will be removed to obtain a total of 12 inches of soil for replacement. Topsoil removal will be completed during the summer for the areas to be mined the following year. Topsoil removal will be kept at least 20 feet ahead of pit excavation.

Although the Natural Resource Conservation Service Soil Survey shows that 7 inches of topsoil exists, the sampling done by our company only shows that 3 inches exist.

Because there is going to be a 1 acre water impoundment, approximately 1 acre of topsoil will be removed off-site and sold. An adequate amount of soil will be retained on-site, and kept on a bonded area to satisfy topsoil replacement requirements.

DESCRIBE METHODS AND EQUIPMENT USED FOR TOPSOIL STORAGE AND PROTECTION

The scrapers will deposit the soil in stockpiles near the pit area (see map #2). The stockpiles will be stored, shaped and seeded (with pasture Seed Mix #2 onpage three of mine plan) on a permitted and bonded area to protect the pile from erosion.

PERMIT NUMBER

0991

SITE NAME

Bottomless Pit #2

LAND RECLAMATION PROGRAM ASSIGNED SITE NUMBER

B. SPOIL

DESCRIBE METHODS AND LOCATION OF SPOIL PLACEMENT AND DISPOSAL

All overburden removed from the pit will be placed in the permitted and bonded mined-out portions of the pit and graded to traversable slopes (3?1) before topsoil is replaced.

C. ACID MATERIALS

DESCRIBE METHODS AND EQUIPMENT USED FOR HANDLING ACID MATERIALS (IF NONE IS ANTICIPATED, WRITE "NONE" BELOW)

A layer of shale lies within the overburden which is slightly acidic. This acidic shale layer will be handled separately and placed in the bottom of the mined out portion of the pit and covered with at least two feet of non-toxic, non-acid forming material.

D. PIT INFORMATION (GIVE ALL DIMENSIONS IN FEET)

DESCRIBE LOCATION AND ORIENTATION OF PIT, IF NOT CLEAR ON SITE MAPS

The first cut will be in the northeast corner of the permitted area. From there the pit will advance to the south and west (see map #2). As the pit nears the west edge, a protective berm will be constructed of large boulders (minimum of 3 feet in diameter) along the west property line. To maximize recovery of reserves, a variance is requested to allow the pit to be 30 feet from the right-of-way from state route CC (see map #2). The excavation will be sloped to a grade of no greater than 33%.

Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Will any excavation be at or within 50' of the right-of-way of any public road?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Will any highwall consisting of unconsolidated materials be left within 50 feet of the right-of-way of any public road? (Note: For unconsolidated materials left in place, a slope of no more than 40 degrees may start near the right-of-way, and in no case may the excavation be closer to the right-of-way than 50' or 25' plus 1 ½ time the depth of unconsolidated material, whichever is greater, unless a variance is granted by the Land Reclamation Commission.)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Will any excavation start at or within 50' of any property line? (Note: If the answer is yes, a safety barrier may be needed.)

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RECLAMATION PLAN – 10 CSR 40-10.020(2)(D)2**A. REVEGETATION (ATTACH ADDITIONAL SHEETS, IF NEEDED)**

REVEGETATION MIX #1 #1	PURPOSE OR LAND USE Wildlife	SEEDING OR PLANTING TIME Spring (March 15-May 1)
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DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring following topsoil replacement, the seed mix will be broadcast and harrowed. After grass has grown sufficient enough to control erosion, trees and shrubs will be hand planted.

Lime and fertilizer will be applied according to recommendations based upon soil test analyses from a qualified lab. Mulch will be applied to all slopes exceeding 5:1.

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Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Orchard Grass	30	White Oak	75
Red Clover	10	Red Maple	75
Korean Lespedeza	10	Gray Dogwood	75

REVEGETATION MIX #1 #2	PURPOSE OR LAND USE Pasture	SEEDING OR PLANTING TIME Spring (March 15 - May 1)
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DESCRIBE METHODS AND EQUIPMENT TO BE USED FOR SEEDING OR PLANTING

During the first spring following topsoil replacement the seed mix will be broadcast and harrowed. Reseeding will be done as needed to achieve grass cover sufficient enough to control erosion and to support pasture.

Lime and fertilizer will be applied according to recommendations based upon soil test analyses from a qualified lab. Mulch will be applied to all slopes exceeding 5:1.

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Seeded Species	Pounds/Acre	Tree or Shrub Species	Stems/Acre
Orchard Grass	15		
Fescue	15		
Alfalfa	10		

PERMIT NUMBER 0991	SITE NAME Bottomless Pit #2	LAND RECLAMATION PROGRAM ASSIGNED SITE NUMBER
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B. GRADING

DESCRIBE PROPOSED RECLAIMED TOPOGRAPHY, INCLUDING SLOPES

All spoil areas will be graded to slopes traversable by farm machinery. A one-acre pond will be constructed in the final pit area. The pond will be designed and constructed to meet NRCS Ponds - 378 standards.

C. DESCRIBE THE GENERAL SEQUENCE AND TIMING OF THE FOLLOWING ACTIVITIES

GRADING

Grading will be done as the pit advances and as spoil is placed in the mined out portions. Final grading will be completed within one year of permit expiration on all mined-out portions.

REPLACEMENT OF TOPSOIL

Topsoil will be replaced to a uniform depth of 12 inches, and disced to reduce compaction. Topsoil will be replaced within one year of permit expiration on all mined-out portions.

REVEGETATION

Prior to seeding, a soil test will be conducted in order to determine appropriate lime and fertilizer application requirements. All topsoil areas will be seeded during the first optimum seeding period following topsoil replacement.

AVERAGE DEPTH OF REPLACED TOPSOIL (INCHES)

12

D. USE OF LAND WHEN RECLAIMED

Estimate acreage of each land use below, after reclamation	Estimated Acres
Wildlife (forest or other habitat with livestock excluded)	9
Agricultural (pasture, cropland and horticultural)	10
Development (residential, industrial and recreational)	0
Water Impoundments (for wildlife, agriculture or development)	1

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By my signature, I attest to the following:

1. All statements made on this Mine Plan Form are correct, complete, and true, to the best of my knowledge.
2. I, or the company I am authorized to represent, intend to mine in accordance with this Mine Plan form, and in accordance with the Missouri Land Reclamation Act, Sections 444.760 through 444.790, RSMo 2009, and all rules, regulations, orders, decisions and permits of the Missouri Land Reclamation Commission pertaining to my company's surface mining operations.
3. I have obtained the approval of all landowners, (for all lease agreements made after Aug. 28, 1990 on leased land) for all proposed post-mining land uses.
4. I have obtained the approval of all landowners, (for all lease agreements made after Aug. 28, 1990 on leased land) for all proposed seed mixtures.
5. I have a valid agreement with all landowners that gives me the right to grant access to the Director of the Missouri Land Reclamation Commission and authorized representatives, and I grant such access, and further where I have no such right, I have attached signed affidavits from the landowners, granting such access.

SIGNATURE AND NOTARIZATION REQUIRED

SIGNATURE OF APPLICANT	TITLE Owner	DATE 08/28/2001
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Appeared before me this _____ day of _____, 20____, to me personally known, who executed the above as their free acts and deeds.

NOTARY PUBLIC EMBOSSE	STATE	COUNTY (OR CITY OF ST. LOUIS)
	SUBSCRIBED AND SWORN BEFORE ME, THIS	
	DAY OF	YEAR
	RUBBER STAMP CLEAR AREA BELOW	
	NOTARY PUBLIC SIGNATURE	MY COMMISSION EXPIRES
	NOTARY PUBLIC NAME (TYPED OR PRINTED)	

FOR DEPARTMENT USE ONLY

APPROVED BY	DATE APPROVED	PERMIT NUMBER	SITE NAME AND NUMBER
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